

Patent Application No.: 10/650,559

2

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

What is claimed:

1-36 (cancelled)

37. (new) An isolated nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1 or the complement of SEQ ID NO: 1.
38. (new) An isolated nucleic acid comprising a degenerate variant of SEQ ID NO: 1 or the complement a degenerate variant of SEQ ID NO: 1.
39. (new) The isolated nucleic acid of claim 38 where said variant is a fragment of SEQ ID NO: 1, said fragment being selected from nucleotides 1-321, 435-1032, 1-1032, 1-1302 or 1383 to 1880 of SEQ ID NO: 1 or the complement of nucleotides 1-321, 435-1032, 1-1032, 1-1302 or 1383 to 1880.
40. (new) The isolated nucleic acid of claim 38 where said variant is a fragment of SEQ ID NO: 1, said fragment comprising a contiguous sequence of at least 85 nucleotides of SEQ ID NO: 1 or the complement of SEQ ID NO: 1.
41. (new) The nucleic acid of claim 39 where the fragment comprises a contiguous sequence of at least 30 nucleotides.
42. The nucleic acid of claim 39 where the fragment comprises a contiguous sequence of at least 100 nucleotides.
43. The nucleic acid of claim 39 where the fragment comprises a contiguous sequence of at least 300 nucleotides.
44. (new) The nucleic acid of claim 39 where the fragment consists essentially of nucleotides 1-321, said fragment producing a polypeptide having a bactericidal activity.
45. (new) The nucleic acid of claim 39 where the fragment consists essentially of nucleotides 1-1032, said fragment producing a polypeptide having a bactericidal activity.

Patent Application No.: 10/650,559

3

46. (new) The isolated nucleic acid of claim 38 where said sequence comprises a nucleotide sequence which is at least 80% identical to the nucleotide sequence of SEQ ID NO: 1.
47. The isolated nucleic acid of claim 38 where said sequence comprises a nucleotide sequence which is at least 60% identical to the nucleotide sequence of SEQ ID NO: 1.
48. (new) An isolated nucleic acid where said nucleotide sequence encodes a polypeptide having the amino acid sequence of SEQ ID NO: 2.
49. (new) A purified polypeptide the amino acid sequence of which comprises SEQ ID NO: 2, or a degenerate variant of SEQ ID NO: 2.
50. (new) The purified polypeptide of claim 46 where said variant is a fragment, said fragment comprising at least 5 consecutive amino acids, wherein said polypeptide is immunologically reactive with an anti-GBS phage lysin antibody.
51. (new) The purified polypeptide of claim 46 where said sequence comprises an amino acid sequence which is at least 80% identical to SEQ ID NO: 2.
52. The purified polypeptide of claim 46 where said sequence comprises an amino acid sequence which is at least 60% identical to SEQ ID NO: 2.
53. (new) The purified polypeptide of claim 46 where said variant is a fragment, said fragment comprising an amino acid sequence selected from the group consisting of: residues 1-107, residues 6-107, residues 6-443, residues 1-344, residues 145-344, residues 145-443 and residues 6-344, where the polypeptide express at least one of an endopeptidase or a glycosidase activity.
54. (new) The purified polypeptide of claim 46 where said variant is a mutant, said mutant being characterized as having at least one of the following characteristics: (i) having a serine residue at position 26; (ii) having a serine residue at position 44; or (iii) having a serine residue at position 26 and position 44. (a) at position 26 the amino acid cysteine is replaced by serine; (b) at position 44 the amino acid cysteine is replaced by serine; or (c) both (a) and (b).
55. (new) The purified polypeptide of claim 50 where s does not express an endopeptidase activity.